

**Tutorial Course on**  
**Power System Stabilization via Excitation Control**  
**at the IEEE PES General Meeting, Tampa, Florida**  
**Thursday June 28th 2007**

Power system stabilizers (PSS) have been used in various forms since the 1960's with the aim of improving power system stability by adjusting generator excitation. With the WECC and various independent system operators requiring their use, many more stabilizers have been installed in recent years.

Despite this increased use, to many engineers working in the field of electric power generation the PSS can appear as a mysterious black box. This tutorial aims to demystify stabilizers, providing engineers with an improved understanding of power system oscillations and the underlying theories implemented within PSS units.

Experts from industrial, academic and governmental organizations will make presentations on aspects of PSS theory including design principles, types of PSS and techniques for field testing.

**Provisional Agenda**

- 8:00 – 8:10**    *Welcome and Introduction*  
Robert Thornton-Jones – Brush, England
- 8:10 - 9:00**    *Review of Feedback & Control Concepts*  
Arjun Godhwani – Southern Illinois University, Edwardsville
- 9:05 - 9:55**    *Overview of Power System Stability Concepts*  
Arjun Godhwani – Southern Illinois University, Edwardsville  
José Taborda – ABB, Switzerland  
Les Hajagos – Kestrel Power Engineering, Toronto
- 9:55 - 10:15**   *Refreshment break*
- 10:15 - 11:05** *Performance Criteria & Tuning Techniques*  
Alexander Murdoch & George Boukarim – GE PSEC, Schenectady
- 11:10 - 12:00** *Integral Of Accelerating Power Type Stabilizers*  
Les Hajagos – Kestrel Power Engineering, Toronto
- 12:00 - 13:00**   *Lunch*
- 13:00 - 13:50** *Field Testing Techniques*  
J.C.Agee and Shawn Patterson – Bureau of Reclamation, Denver
- 13:55 - 14:45** *Application Considerations*  
Murray Coultes – Goldfinch Power Engineering, Toronto
- 14:45 - 15:05**   *Refreshment break*
- 15:05 - 15:55** *Future Directions In PSS Design*  
Om Malik – University of Calgary  
José Taborda – ABB, Switzerland
- 15:55 - 16:45**   *Question and answer session with all presenters.*